

CLAIMS

A copy of all pending claims and a status of the claims are provided below.

1. (original) An apparatus, comprising:

 a lifting device capable of lifting a pallet of bundled product from a lowered position to a raised position;

 a platform positioned on the lifting device holding the pallet of bundled product;

 a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet; and

 a conveyor mechanism, extendible into the separation space, which conveys the top layer of product away from the pallet when the top layer of bundled product is lowered thereon.

2. (original) The apparatus of claim 1, wherein the bundled product is mail objects.

3. (original) The apparatus of claim 2, wherein the mail objects are flats.

4. (original) The apparatus of claim 1, wherein the head mechanism is a tilt head mechanism and the holding device is one of a vacuum source to produce a suction force and a pair of opposing arms moveable between a first position and a second, closer position to lift and lower the top layer of bundled product.

5. (original) The apparatus of claim 1, wherein the platform is rotatable to orient the bundled product into the first orientation from a second orientation.

6. (original) The apparatus of claim 5, further comprising a control system for controlling

at least the lifting device, the platform, the head mechanism and the conveyor mechanism.

7. (original) The apparatus of claim 1, further comprising one of a bar code reader and optical recognition system for reading labels on the bundled product.

8. (original) The apparatus of claim 1, further comprising an input station, adjacent to the platform when in a lowered position, wherein at least one of the input station and the platform include a conveyor device which conveys the pallet from the input station to the platform when the platform is in a lowered position.

9. (original) The apparatus of claim 1, further comprising a distribution conveyor downstream from the conveyor mechanism, the distribution conveyor including at least one diverter for diverting the bundled product to one of a plurality of input feeders.

10. (original) The apparatus of claim 9, wherein the at least one diverter is controlled by a controller and the distribution conveyor is positioned substantially orthogonal to the conveyor mechanism.

11. (original) The apparatus of claim 1, wherein the lift device includes a sensor or actuating system to determine a height of the lift mechanism and a load on the pallet.

12. (original) The apparatus of claim 1, further comprising a pallet stacker, the platform including a conveying mechanism which places empty pallets on the pallet stacker when the platform is in a lowered position.

13. (original) An apparatus, comprising:

means for lifting a pallet of bundled product between a lowered position and a

raised position;

means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet;

means for transporting the top layer of the bundled product, in a first orientation, separated from the adjacent lower layer of bundled product or the pallet, to at least one feeding device.

14. (original) The apparatus of claim 13, wherein the separation means drops the top layer of bundled product onto the transporting means.

15. (original) The apparatus of claim 13, wherein the separation means is one of a vacuum and moveable opposing arms capable of lifting the top layer of bundled product.

16. (original) The apparatus of claim 13, wherein the bundled product is a bundle of flats.

17. (original) The apparatus of claim 13, wherein the transportation means includes:

a conveyer positionable within the separation space; and

a distribution conveyor having diverters which are moveable between a first position and a second position, the diverters capable of diverting the bundled product to any of the at least one feeding device based on information associated with the bundled product, wherein the conveyor conveys the bundled product away from the separation means and towards the distribution conveyor.

18. (original) The apparatus of claim 13, further comprising rotating the bundled product into the first orientation from a second orientation prior to the separating.

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Claims 19-22. (cancel)